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10/763,056	01/21/2004	Gary S. Ash	0100.2045-000	3792

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EXAMINER	
EARLY, MICHAEL JACOBY	
ART UNIT	**PAPER NUMBER**
3744	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/763,056	ASH ET AL.	
	Examiner	Art Unit	
	Michael J. Early	3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13, 15-17, 19, 38, 40-42, 44, 51 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Hafner et al. (U.S. 5,400,604).

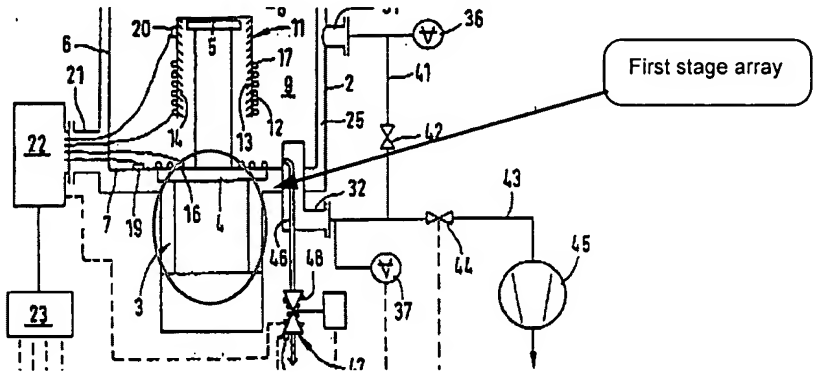
Regarding claim 13, Hafner et al. disclose a closed cycle refrigerator (9 – refrigeration unit); a cooled condensing surface (11 – cold surfaces of the second stage); a pressure gauge (37 – pressure measuring device) sensing pressure in an inner vacuum region (9 – pump interior) (as seen in Figure 1) behind the condensing surface (as seen in Figure 1), the inner vacuum region including an adsorbent (adsorption material; col. 5, lines 25-29); and the sensed region being substantially less than the pressure in an outer vacuum region (25 – space) outside of the condensing surface (see col. 8, line 62 – col. 9, line 9).

Regarding claim 15, Hafner et al. disclose the pressure gauge is connected to a tube or duct (32 – connecting pipe) leading to the inner vacuum region behind the condensing surface (as seen in Figure 1).

Regarding claim 16, Hafner et al. disclose gases are adsorbed within the condensing surface, the adsorbed gases consisting substantially of non-condensable gases (see col. 1, lines 44-47).

Regarding claim 17, Hafner et al. disclose the non-condensable gases include at least one of hydrogen, helium or neon (see col. 1, lines 44-47).

Regarding claim 19, Hafner et al. disclose first (as seen in the partial illustration of Figure 1 below) and second stage arrays (13 – inner surface regions) cooled by the refrigerator (as seen in Figure 1), and the second, colder stage further including the condensing and adsorbing surfaces (see col. 5, lines 18-29; Figure 1).



(Partial illustration of Figure 1)

Regarding claim 20, Hafner et al. disclose a second stage cryopanel (11 – cold surfaces of the second stage) surrounded by a radiation shield (6 – radiation shield), the cryopanel having an array of elements (13 – inner surface regions) coated with an adsorbent (adsorption material; col. 5, lines 25-29) (as seen in Figure 1), the elements being coupled to and in close thermal contact with a heat sink (22 – heat supply) on the second, colder stage (as seen in Figure 1; As recited by the Applicant, element 206b is referred to as a "heat sink" or "heat station" [see Specification, page 6, lines 10-13]. Therefore, using the broadest interpretation of the claim, the aforementioned "heat supply" is being interpreted as a location where heat is positioned or stationed.).

Regarding claim 38, Hafner et al. a cooled condensing surface (11 – cold surfaces of the second stage) coated with an adsorbent (adsorption material) for adsorbing non-condensable gases (see col. 5, lines 25-29); and a pressure gauge (37 – pressure measuring device) sensing pressure in an inner vacuum region (9 – interior vacumm) enclosed by the condensing surface (as seen in Figure 1), the sensed pressure being

substantially less than the pressure in an outer vacuum region (25 – space) outside of the condensing surface (see col. 8, line 62 – col. 9, line 9).

Regarding claim 40, Hafner et al. disclose the recited limitations above in claim 15.

Regarding claim 41, Hafner et al. disclose the recited limitations above in claim 16.

Regarding claim 42, Hafner et al. disclose the recited limitations above in claim 17.

Regarding claim 44, Hafner et al. disclose the recited limitations above in claim 19.

Regarding claim 51, Hafner et al. disclose the pressure gauge measures the pressure of non-condensable gases without sensing the cryopump total pressure (as seen in Figures 1-3, the pump interior [9] and vacuum region [25] separated from each other via the radiation shield [6], bottom [7] and bellows [26], thus it is evident that the measured pressure within the respective spaces are distinct; col. 5, lines 5-63; col. 6, lines 17-45).

Regarding claim 53, Hafner et al. disclose the recited limitations above in claim 51.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 18, 21 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hafner et al.

Hafner et al. do not expressly disclose:

- the pressure differential between the vacuum region and process chamber;
- the partial pressure differential of hydrogen between the inside and outside of the second stage array.

Regarding claim 18 and 43, it would have been an obvious matter of design choice to a person of ordinary skill in the art to make the pressure within the vacuum region at least one order of magnitude less than that found within the process chamber because the Applicant has not disclosed that having the pressure within a vacuum chamber at least one order of magnitude less than that found within the process chamber provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, therefore, would have expected the Applicant's invention to perform equally well with either the implicit pressure differential taught by Hafner et al. or the claimed at least one order of magnitude differential because both pressure differentials are necessary in the operation of the cryopump.

Regarding claim 21, it would have been an obvious matter of design choice to a person of ordinary skill in the art to make the partial pressure of hydrogen within the second stage array less than that found outside of the second stage array because the Applicant has not disclosed that having the partial pressure of hydrogen within the second stage array less than that found outside of the second stage array provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, therefore, would have expected the Applicant's invention to perform equally well with either the implicit pressure differential taught by Hafner et al. or the claimed pressure differential because both pressure differentials are necessary in the operation of the cryopump.

Claims 1, 3-6, 8-12, 24-26, 28-31, 33-37, 47, 49, 50, 52 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hafner et al. in view of Larin et al. (US 5,014,517).

Regarding claim 1, Hafner et al. disclose a method of measuring fullness of a cryopump (1 – cryopump) comprising coupling (via connecting pipe [32]) a pressure gauge (37 – pressure measuring device) in fluid communication with an inner vacuum region (9 – pump interior) behind a condensing surface (11 – cold surfaces of the second stage) (as seen in Figure 1, the inner vacuum region including an adsorbent (adsorption material) for adsorbing non-condensable gases in a cryopump (see col. 5, lines 25-29); and measuring pressure of the inner vacuum region with the pressure gauge, the measured pressure being substantially less than the pressure in an outer vacuum region (25 – space) outside of the condensing surface (see col. 8, line 62 – col. 9, line 9).

Hafner et al. do not expressly disclose using the measured pressure to determine an adsorption capacity of the adsorbent.

Larin et al. teach of a cryogenic sorption pump that is comprised of sorbent material located within the system's annular spaces (see Abstract). Larin et al. further disclose that it is well known in the art that the pressure within the pump can be used to determine the sorption capacity of the pump's sorbent material (see col. 4, line 64 – col. 5, line 3). Further disclosed is that the system's sorption material may be hydrogen, helium or neon (see col. 4, line 47 – col. 5, line 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the exisiting system of Hafner et al. by using the pressure measured within the system to determine the system's sorption capacity, as taught by Larin et al., so to provide a means of monitoring the system's use, thus allowing the system to be utilized more effectively and efficiently.

Regarding claim 3, Hafner et al. disclose the recited limitations above in claim 15.

Regarding claim 4, Hafner et al. disclose the recited limitations above in claim 16.

Regarding claim 5, Hafner et al. disclose the recited limitations above in claim 17.

Regarding claim 6, Hafner et al. disclose the recited limitations above in claim 18.

Regarding claim 8, Hafner et al. disclose the recited limitations above in claim 19.

Regarding claim 9, Hafner et al. disclose the recited limitations above in claim 21.

Regarding claims 10-12, Hafner et al. do not expressly disclose determining whether the adsorbent has reached its adsorption capacity for non-condensable gases or a residual adsorbent capacity of the pump using the measured pressure.

As aforementioned, Larin et al. disclose that it is well known in the cryogenic pump art that the pressure within the pump can be used to determine the sorption capacity of the pump's sorbent material (see col. 4, line 64 – col. 5, line 3).). Further disclosed is that system's sorption material may be hydrogen, helium or neon (see col. 4, line 47 – col. 5, line 8).

Regarding claims 10 and 11, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the exisiting system of Hafner et al. as modified by Larin et al. by using the pressure measured within the system to determine if the system has reached its sorption capacity for a non-condensable gas, so to ensure that the system is not used excessively, thus allowing the system to be used for its intended lifespan and providing users with a system that is cost-effective.

Regarding claim 12, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the exisiting system of Hafner et al. as modified by Larin et al. by using the pressure measured within the system to determine the system's residual sorption capacity, so to ensure that the system is not used in excess, thus allowing the system to be used for its intended lifespan and providing users with a system that is cost-effective.

Regarding claim 24, Hafner et al. do not expressly disclose using the controller to determine theresidual adsorbent capacity of the pump using the measured pressure.

Hafner et al. disclose an electronic controller (23 – control device) which measures pressure with the pressure sensor (see col. 6, lines 63-67); the controller including computer instructions (obvious – for an electronic controller to operate, it must be preset or programmable to function in a certain manner).

As aforementioned, Larin et al. disclose that it is well known in the cryogenic pump art that the pressure within the pump can be used to determine the sorption capacity of the

pump's sorbent material (see col. 4, line 64 – col. 5, line 3). Further disclosed is that system's sorption material may be hydrogen, helium or neon (see col. 4, line 47 – col. 5, line 8).

Regarding claim 24, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the exisiting system of Hafner et al. as modified by Larin et al. by using the control device to measure the pressure within the system to determine the system's residual sorption capacity, so to provide an automated method of ensuring that the system is not used excessively, thus allowing the system to be used for its intended lifespan and providing users with a system that is cost-effective.

Regarding claim 25, Hafner et al. disclose the recited limitations above in claim 1.

Regarding claim 26, Hafner et al. disclose the recited limitations above in claim 1.

Regarding claim 28, Hafner et al. disclose the recited limitations above in claim 15.

Regarding claim 29, Hafner et al. disclose the recited limitations above in claim 16.

Regarding claim 30, Hafner et al. disclose the recited limitations above in claim 17.

Regarding claim 31, Hafner et al. disclose the recited limitations above in claim 15.

Regarding claim 33, Hafner et al. disclose the recited limitations above in claim 19.

Regarding claim 34, Hafner et al. disclose the recited limitations above in claim 9.

Regarding claim 35, Hafner et al. disclose the recited limitations above in claim 10.

Regarding claim 36, Hafner et al. disclose the recited limitations above in claim 11.

Regarding claim 37, Hafner et al. disclose the recited limitations above in claim 12.

Regarding claim 47, as aforementioned, Hafner et al. disclose an electronic controller (23 – control device) which measures pressure with the pressure sensor (see col. 6, lines 63-67); the controller including computer instructions (obvious – for an electronic controller to operate, it must be preset or programmable to function in a certain manner).

In addition, as aforementioned, Larin et al. disclose that it is well known in the cryogenic pump art that the pressure within the pump can be used to determine the sorption capacity of the pump's sorbent material (see col. 4, line 64 – col. 5, line 3). Further disclosed is that system's sorption material may be hydrogen, helium or neon (see col. 4, line 47 – col. 5, line 8).

Regarding claim 47, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the exisiting system of Hafner et al. as modified by Larin et al. by using the control device to determine whether the absorbent has reached its capacity, so to provide an automated method of ensuring that the system is not used excessively, thus allowing the system to be used for its intended lifespan and providing users with a system that is cost-effective.

Regarding claim 49, Hafner et al. disclose the recited limitations above in claim 1.

Regarding claim 50, Hafner et al. disclose the recited limitations above in claim 51.

Regarding claim 52, Hafner et al. disclose the recited limitations above in claim 51.

Regarding claim 54, Hafner et al. disclose the recited limitations above in claim 24.

Claims 2, 7, 27 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hafner et al. as modified by Larin et al., and further in view of Pfeiffer et al. (US 4,873,833).

Hafner et al. as modified by Larin et al. do not expressly disclose:

- an ion gauge;
- an array of baffles.

Pfeiffer et al. teach of an apparatus that creates a high vacuum system through the use of a cryopump (see col. 1, lines 6-10). Pfeiffer et al. further disclose that the pressure within the apparatus is measured by an ion gauge (42) (see col. 5, lines 27-33; Figure 3). Further disclosed is that the apparatus is comprised of a plurality of chevrons (12 – which correspond to the claimed baffles) that are supported by a multiplicity of support ribs (13) (see col. 4, lines 24-27; Figure 1). In addition, further disclosed is that the apparatus is comprised of auxiliary cooling means, which are adapted for the removal of heat from the cryopump (see col. 3, lines 28-68).

Regarding claims 2 and 27, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing apparatus of Hafner et al. as modified by Larin et al. by incorporating an ion gauge to measure the pressure within the apparatus, as taught by Pfeiffer et al., because they are simple, readily available devices that are known for their accurate measurements.

Regarding claims 7 and 32, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing apparatus of Hafner et al. as modified by Larin et al. by incorporating a plurality of chevrons, as taught by Pfeiffer et al., so that a larger surface area within the apparatus will be available for absorbing molecules of gas.

Claims 14, 20, 39 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hafner et al. in view of Pfeiffer et al.

Hafner et al. do not expressly disclose:

- an ion gauge;
- an array of baffles.

As aforementioned, Pfeiffer et al. teach of a cryopump that is comprised of an ion gauge (42) and a plurality of baffles (12 – chevrons).

Regarding claims 14 and 39, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing apparatus of Hafner et al. by incorporating an ion gauge to measure the pressure within the apparatus, as taught by Pfeiffer et al., because they are simple, readily available devices that are known for their accurate measurements.

Regarding claims 20 and 45, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing apparatus of Hafner et al. by incorporating a plurality of chevrons, as taught by Pfeiffer et al., so that a larger surface area within the apparatus will be available for absorbing molecules of gas.

Claims 22, 23, 46 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hafner et al. as modified by Pfeiffer et al., and further in view of Larin et al.

Hafner et al. as modified by Pfeiffer et al. do not expressly disclose:

- using the controller to determine whether the adsorbent has reached its adsorption capacity for non-condensable gases;
- the partial pressure differential of hydrogen between the inside and outside of the second stage array.

As aforementioned, Hafner et al. disclose an electronic controller (23 – control device) which measures pressure with the pressure sensor (see col. 6, lines 63-67); the controller including computer instructions (obvious – for an electronic controller to operate, it must be preset or programmable to function in a certain manner).

As aforementioned, Larin et al. disclose that it is well known in the cryogenic pump art that the pressure within the pump can be used to determine the sorption capacity of the pump's sorbent material (see col. 4, line 64 – col. 5, line 3). Further disclosed is that system's sorption material may be hydrogen, helium or neon (see col. 4, line 47 – col. 5, line 8).

Regarding claims 22, 23 and 48; it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the exisiting system of Hafner et al. as modified by Pfeiffer et al. by using the control device to measure the pressure within the system to determine if the system has reached its sorption capacity for a non-condensable gas, as taught by Larin et al., so to provide an automated method of ensuring that the system is not used excessively, thus allowing the system to be used for its intended lifespan and providing users with a system that is cost-effective.

Regarding claim 46, Hafner et al disclose the recited limitations above in claim 2.

Response to Arguments

Applicant's arguments filed 10/18/06 have been fully considered but they are not persuasive.

Applicant argues that the pressure sensor (37) would not be able to detect the inner lower pressure region of the pump since there is no duct or other mechanism to separate the pump interior from the insulated vacuum region. This argument is not persuasive. As seen in Figures 1 and 2, the pump interior (9) and vacuum region (25)

are clearly separated from one another via the radiation shield (6), bottom (7) and bellows (26) (see col. 5, lines 5-63). Thus, the rejection is valid and remains.

Applicant argues that Hafner et al. do not discuss or allow for sensing pressure behind a condensing surface of a cryopump as claimed. This argument is not persuasive. The notion of sensing the pressure ***behind*** the condensing surface can be viewed in many ways. The Applicant has not designated a reference frame in which the term "behind" is to be associated with therefore, by examining this limitation in its broadest reasonable interpretation, one of ordinary skill in the art would agree that Hafner et al. clearly provide a means for sensing the pressure behind the condensing surface.

Applicant further argues that the sensed pressure in Hafner et al.'s cryopump is not substantially less than the pressure in an outer vacuum region outside of the condensing surface. This argument is not persuasive. As aforementioned, Hafner et al. disclose that the pressure in the insulation vacuum is higher that than in the pump interior (see col. 8, line 62 – col. 9, line 9). Thus, the rejection is valid and remains.

Regarding claim 1, Applicant's arguments, see Remarks (page 13), filed 10/18/06, with respect to the rejection(s) of claim(s) 1 under 35 USC § 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hafner et al. (US 5,400,604) in view of Larin et al. (US 5,014,517).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Early whose telephone number is (571) 272-3681. The examiner can normally be reached on Monday - Friday, 7am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJE
1/9/07

Michael J. Early
Patent Examiner
Art Unit 3744

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SUPERVISORY PATENT EXAMINER